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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/663,594	09/18/2000	Wolfgang O. Budde	PHD 99,127	4059

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EXAMINER	
BATES, KEVIN T	
ART UNIT	**PAPER NUMBER**
2155	

DATE MAILED: 11/08/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/663,594	BUDDE ET AL.	
	Examiner	Art Unit	
	Kevin Bates	2155	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *05 October 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-11* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-11* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

Response to Amendment

This Office Action is in response to a communication made on October 5, 2005.

Claims 1-11 have been previously presented and are pending in this application.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-3, 5-8, and 10-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shimizu (4866702) in view of Dean (4641375).

Regarding claim 1, Shimizu teaches a network comprising a plurality of network nodes, wherein at least part of the network nodes are directly intercoupled via at least one star node (Column 3, lines 60 – 63), the star node contains a plurality of star interfaces which are assigned to at least one network node (Column 3, lines 63 – 66), and in dependence on a pilot signal generated by at least one network node (Column 4, lines 5 – 7), one star interface controls the conveyance of a message from the assigned network node to the other star interfaces, or from another star interface to at least one of the assigned network nodes (Column 3, lines 63 – 67).

Shimizu does not explicitly indicate that the pilot signal is remote from the star interface node or the star node.

Dean teaches a LAN system that includes a star configuration (Column 1, lines 35 – 41) where the stations can generate a pilot signal (Column 2, lines 41 – 48).

It would have been obvious to one of ordinary skill in the art at the time the invention was made for station nodes to issue pilot signals in order to allow the pilot signals to be easily identifiable by the stations based on the individual frequencies of the signal given to each station.

Regarding claim 2, Shimizu teaches a network as claimed in claim 1, wherein each network node in the network is assigned a certain periodically recurrent time section for the transmission of its messages (Column 2, lines 42 – 45) and a network node comprises a pilot signal generator which generates a pilot signal which denotes either the whole assigned time section or the beginning and end of the time section (Column 2, line 57 – 58; Column 7, lines 50 – 55).

Regarding claim 3, Shimizu teaches a network as claimed in claim 1, wherein each star interface comprises:

a first and second switch element and a pilot signal detector, the first switch element in activated state is provided for allowing a message to pass from the assigned network node to the other star interfaces (Column 7, lines 26 – 49) and the second switch element in activated state is provided for allowing a message to pass from the other star interfaces to the assigned network node (Column 5, lines 47 – 61); and

the pilot signal detector is provided for activating a first switch element and deactivating a second switch element or deactivating the first switch element and

activating the second switch element in dependence on a pilot signal from the assigned network node (Column 8, line 57 – Column 9, line 25).

Regarding claim 5, Shimizu teaches a network as claimed in claim 1, wherein a star interface is provided for generating a release signal when the assigned network node denotes a message transmission by a pilot signal, the lines conveying tile release signal of each star interface are coupled via an OR combination and the OR combination transfers the release signal to all the star interfaces of the star node (Column 2, line 49 – Column 3, line 9).

Regarding claim 6, Shimizu teaches a network as claimed in claim 5, wherein the OR combination is an OR gate or a wired OR combination (Column 2, line 49 – Column 3, line 9).

Regarding claim 7, Shimizu teaches a network as claimed in claim 2, wherein at least one network node is assigned a plurality of star interfaces of which only one is provided for transferring messages in dependence on the state of the assigned network node (Column 10, line 60 – Column 11, line 25).

Regarding claim 8, Shimizu teaches a network as claimed in claim 7, wherein at least one network node contains at least two pilot signal generators and two multiplexers for combining the pilot signal generated by the assigned pilot signal generator with a message (Column 10, lines 23 – 34), and a control unit decides over which line connection and over which assigned star interface the message combined with a pilot signal is transmitted (Column 7, lines 50 – 68).

Regarding claim 10, Shimizu teaches a network node in a network comprising further network nodes, wherein the network node is provided for coupling to further network nodes via at least one star node and the network node is provided for indicating a transmission of a message to a star interface of the star node together with a pilot signal (Column 3, lines 60 – 66).

Shimizu does not explicitly indicate that the pilot signal is remote from the star interface node or the star node.

Dean teaches a LAN system that includes a star configuration (Column 1, lines 35 – 41) where the stations can generate a pilot signal (Column 2, lines 41 – 48).

It would have been obvious to one of ordinary skill in the art at the time the invention was made for station nodes to issue pilot signals in order to allow the pilot signals to be easily identifiable by the stations based on the individual frequencies of the signal given to each station.

Regarding claim 11, Shimizu disclose a star node in a network for coupling a plurality of network nodes to a plurality of star interfaces, which are assigned to at least one network node and which, in dependence on a pilot signal generated by one of the plurality of network nodes, are each provided for transferring a message from the assigned network node to the other star interfaces, or from another interface to at least one of the assigned network nodes (Column 3, lines 60 – 66).

Shimizu does not explicitly indicate that the pilot signal is remote from the star interface node or the star node.

Dean teaches a LAN system that includes a star configuration (Column 1, lines 35 – 41) where the stations can generate a pilot signal (Column 2, lines 41 – 48).

It would have been obvious to one of ordinary skill in the art at the time the invention was made for station nodes to issue pilot signals in order to allow the pilot signals to be easily identifiable by the stations based on the individual frequencies of the signal given to each station.

Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Shimizu in view of Kobayashi (5200949) as applied to claims 1-3, 5-8, and 10-11 above, and further in view of Kobayashi (4,694,453).

Regarding claim 4, Shimizu teaches a network as claimed in claim 3.

Shimizu lacks the idea that the first and second switch elements are each a switchable amplifier.

Kobayashi ('453) teaches a star node and a star interface that has an amplifier for adjusting signals on the upstream and downstream (Figure 5, label 12 and 20) before the switched input to the necessary voltages so that signals can be read correctly (Column 4, lines 21 – 23). So Kobayashi ('453) teaches the idea that the first and second switch elements are each a switchable amplifiers.

It would have been obvious at the time the invention was made to use Kobayashi's amplifiers in order to have an element to ensure that the signals that each of the star interfaces were sending and receiving were of the proper voltage.

Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Shimizu in view of Kobayashi (5200949) as applied to claims 1-3, 5-8, and 10-11 above, and further in view of Schenkyr (5,218,600).

Regarding claim 9, Shimizu teaches a network as claimed in claim 8, wherein a control unit (Arbiter) and the control unit checks the presence of the pilot signal on the various line connections by evaluating pilot signal detectors (Column 8, lines 33 – 47), and, during the transmission of the message, the presence of the pilot signal on all the line connections (Column 8, lines 33 – 47).

Shimizu does not explicitly indicate that the control unit is provided for testing the operability of the star interfaces, of the line connections, and of a circuit component in the network node.

Schenkyr teaches scanning for interruption of a connecting line or a node failure in a network system (Column 2, lines 16 – 19) by using empty signals to monitor the line (Column 1, lines 55 – 57). So Schenkyr teaches the idea of testing the operability of the star interfaces, of the line connections, and of a circuit component in the network node.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to add Schenkyr's ideas of monitoring the state of the network so that the system can know of a problem and attempt to compensate (Column 2, lines 16 – 24).

Response to Arguments

Applicant's arguments with respect to claims 1-11 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kevin Bates whose telephone number is (571) 272-3980. The examiner can normally be reached on 8 am - 4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Saleh Najjar can be reached on (571) 272-4006. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

KB

KB
November 7, 2005

SALEH NAJJAR
SUPERVISORY PATENT EXAMINER